RISK MANAGEMENT TOOLS FOR ALBERTA PRODUCERS

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Growing Forward 2
A federal-provincial-territorial initiative

Alberta Government

Canada

The Tools

1) CME Futures Contracts

2) CME Futures Options

3) Cattle Price Insurance

4) Contracts
    - Full Price
    - Basis

5) Combinations of the above

FUTURES CONTRACTS

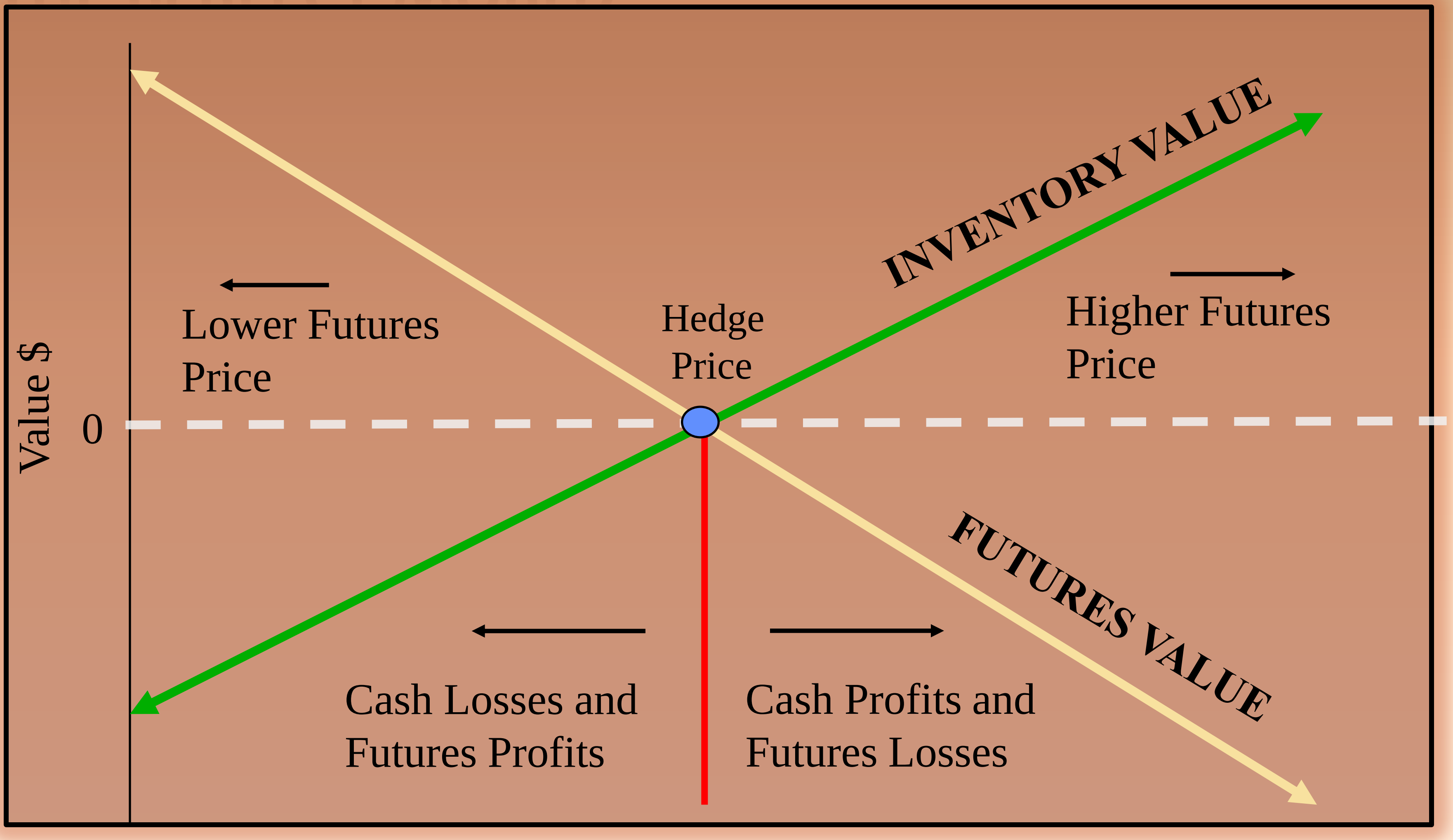
- **Futures market** = where buyers and sellers meet to trade commitments to make or take delivery of commodities through standardized (quality, quantity, location, delivery period) futures contracts

- **Futures contracts**

  Must have a buyer and a seller (offsetting positions)

  - **Seller = short position**
  - **Buyer = long position**

CLASSIC HEDGE USING SHORT FUTURES: THE PERFECT WORLD



OPTIONS: DERIVIATIVES OF FUTURES

Underlying asset = futures contract

Seller = receives the premium and has an obligation to the buyer

CALL: buyer has the right but not the obligation to <u>buy</u> (go long) the underlying asset at a specified price (strike price) within a specific time period (expiry)

PUT: buyer has the right but not the obligation to <u>sell</u> (go short) the underlying asset at a specified price (strike price) within a specific time period (expiry)

Factors Influencing Option Values

Intrinsic value – strike price relative to the underlying asset price

Time Value - days until expiry

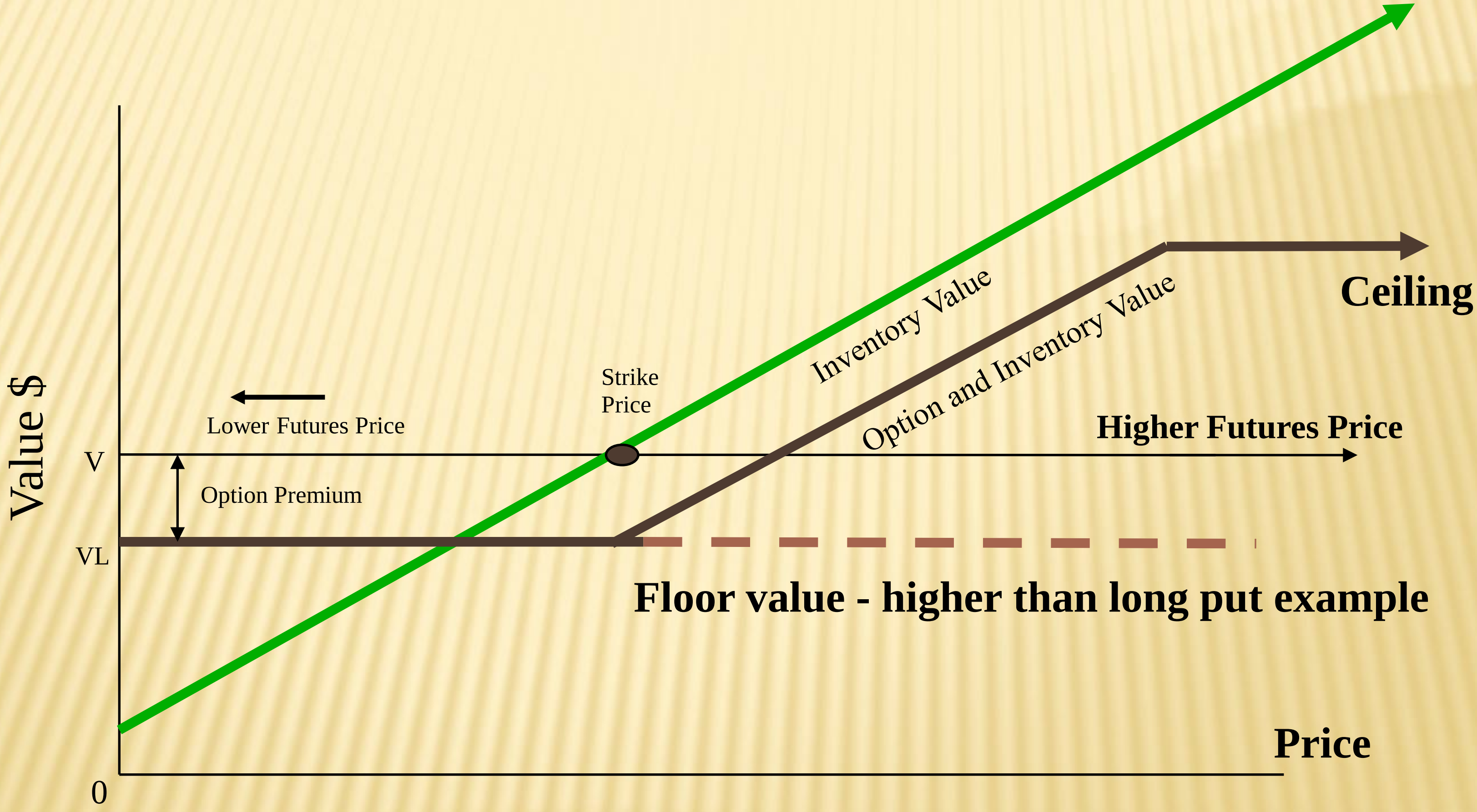
Volatility

Interest rates

$\Delta \quad \Theta \quad \nu$

MINIMUM PRICE USING LONG PUT OPTION

Minimum and Maximum Price Using Long Put Option And Short Call option



Feeder Cattle Long Hedge (long call)

Feeder cattle purchase considered

Option Seller
- Sells Call on FC futures
- Receives premium

CME

Feedlot
- Buys Call on FC futures for 3 months into the future
- Pays premium

FC Futures Down

FC Futures UP

Option Seller
- Banks Premium

Feedlot
- Out the premium

Low cash

High cash

Feedlot
- Gets long futures at a lower price
- Feedlot nets Mkt. Value gain less premium

Option Seller
- Gets short futures at lower price
- Nets market value loss plus premium

Feedlot buys Cattle

Fed Cattle Short Hedge (long put)

Feedlot buys Cattle
Cash Market

CME

Option Seller
- Sells Put option on LC futures
- Receives premium payment

Feedlot
- buys put option on LC Futures
- Pays Option seller a premium

LC Futures Down

Option Seller
•gets Long LC futures at higher than current price
•Nets futures market loss plus premium

Feedlot
•gets short futures at high price
•Futures market gain

Cattle go to packer
at a lower price

LC Futures Up

Feedlot
•out the premium

Option Seller
•banks the premium

Cattle go to packer
at a higher price

Fed Cattle Short Hedge (long put)

Feedlot buys Cattle
Cash Market

CME

Option Seller
- Sells Put option on LC futures
- Receives premium payment

Feedlot
- buys put option on LC Futures
- Pays Option seller a premium

LC Futures Down

Option Seller
- gets Long LC futures at higher than current price
- Nets futures market loss plus premium

Feedlot
- gets short futures at high price
- Futures market gain

Cattle go to packer
at a lower price

LC Futures Up

Feedlot
- out the premium

Option Seller
- banks the premium

Cattle go to packer
at a higher price

CONTRACTS

Full Price contract

- Quantity, quality, and delivery period
- Pricing, title transfer, physical transfer, settlement

Basis contract

- Establishes a basis (FOB delivery point) only
- May concurrently establish exchange rate
- Ability to enter into short futures position at a later date

FUTURES CONTRACTS

Benefits

- Can eliminate price and currency risk
- Flexible
- Very liquid marketplace

Limitations

- Basis risk remains
- Margin requirements and hedge account
- Time
- Requires expertise and discipline
- Contract sizes

OPTIONS CONTRACTS

Benefits

- Can minimize price and currency risk
- Upside potential
- Tradable
- Ability to design flexible strategies

Limitations

- Basis risk remains
- Hedge account needed
- Can be margin requirements
- Time
- Expertise
- Underlying contract sizes
- Lack of liquidity in distant contracts

CATTLE PRICE INSURANCE

<u>Benefits</u>

- Price, Currency and <u>Basis</u> risk
- Little discipline needed
- No minimum purchase amounts
- Simple program
- Easy to execute
- Upfront costs known
- Effective in all border situations

<u>Limitations</u>

- Less flexible
- Threshold limits
- Non-traditional forecasting and pricing methodology
- Restrictive purchase/settlement hours

DELIVERY CONTRACTS

Benefits

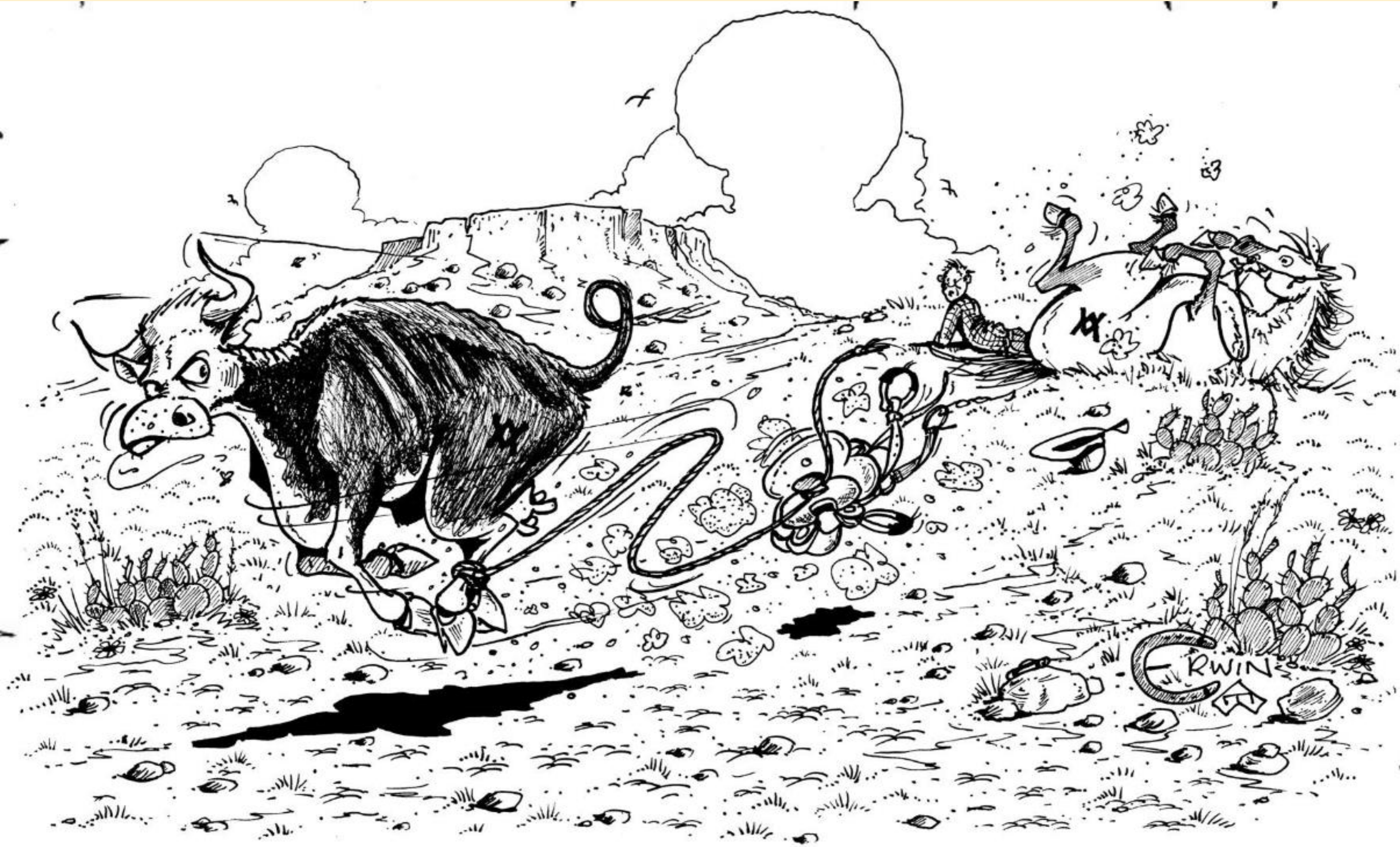
- Price, Currency and/or Basis risk
- Know price, delivery date and buyer
- No discipline needed
- No cost

Limitations

- Non-tradable
- No upside price potential
- Discounts
- Minimum sale limits (loads)
- *Force majeure* (border closure risk)
- Uneven availability

PLAN


Our Risk Management Plan
Goes Something Like This...
HELP!
HELP!



"WUL, HOSS,... I DUNNO 'BOUT YEW,... BUT I DIDN'T SEE THAT COMIN'!"

THANK YOU

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